P02285US5 (ISURF 2159 P1P2) ROTHSCHILD, et al. PROLACTIN RECEPTOR GENE AS A GENETIC MARKER FOR INCREASED LITTER SIZE IN ANIMALS Sheet 1 of 5

AAGTCAACAA AGATGGAGCA CTGGCGTTGC TCCCAAAACA GCAGGAGAAC
GGCGACCGGC CGGAGAAGGC TGGCGCCCCT GAAACCAGCA AGGAATACG
CCCAGGTGTC CCGGGTGATG GATAACCACA TCCTGGTGTT AGTGCAGGAT
CCGCGAGCTC GAAACGTGGC TCCGTTTGAA GAACCAACCA AGGAGACCCC
GCCATCCCGG CCGCAGAATC CAGCTGCGAA AGACCTGGCC G/AGCTTCACCA
CGGCCCCGGG CCACTGCAGA CACCCGCTGG GTGGGCTGGA TTACCTCGAT
CCCGCAGGCT TTATGCACTC CTTTCAGTGA GAGCTTGGTT CATGGGATGA
TGGGTTACAA GGTGGGGTTT TTTTCAGGTC GCACTACGTG AAATGCACTC
TACCAGAGAA AGCTCGAAAA TGGGGTTAGA ATGACACTAC CCAGACTCAC
AGTTCACTCC TCTTCATGCT CCATTTTCAA CCACTTGCCTCTT

G/A=G or A at polymorphic site

Fig. 1

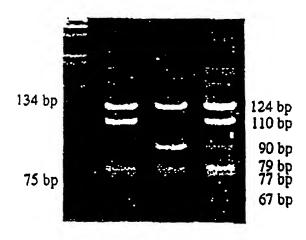
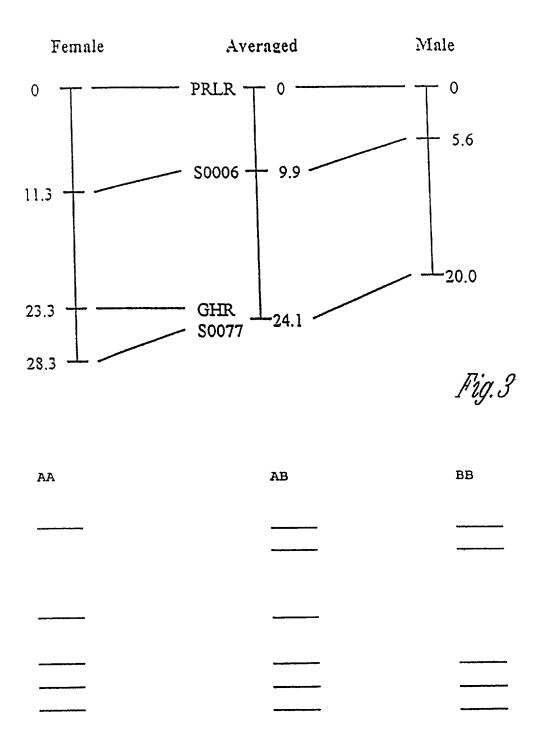


Fig.2

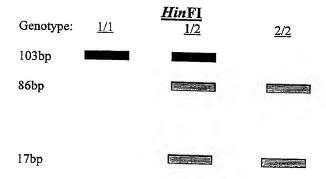
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1	GATTATTGTC	TGGGCAGTGG		TCTTCTCTGT	CTATCNACCC	CCCTCCCATT	60
61		AGGGTATAAT				GAAACCTACA	
121	${\tt GATAATT}{\bf Y}{\tt AA}$	GCACCTCATT				A	
181	AAAAA	AAAACCTTTT	CTCAGTGCTA	GAAAAAAAACA	GAATAGACTC	ATTTGAAACT	240
241	GATCTTCTCT	CTACCAAAGG	GAGTAGCGCA	GTTGTGAAAT	AGTAAACGTC	TGACAAGAAC	300
301	AGCAAATAAT	CCCACTAGTA	ATTTCAGAAT	CCGCCTCCTC	AATTAGCCAG	AATTCACTGT	360
361	GATGCTGGCC	TCTATAATTA	TTATTTGTCT	TCACCACTGA	TTAGTTTCAC	ATCATGAAAA	420
421	TTGCATGTCA	TTTAGTTTCA	CRTAGCCTCA	GAACCAACCC	TAATTCCTAC	CTGCCATATC	480
481	CCTGTAGCAG	CTATTCGAAG	ATCACAAGGT	GGGAACATGT	GTYATTTATC	TTTTCTCTTA	540
541	CATTATTTTA	GAGCATGGTG	GCCTGCATCC		GGGCCAAAAA	TAAAAGGATT	600

Fig.5





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HpyCH4IV
Genotype: 1/1 1/2 2/2

300+bp
~300bp

~165bp
~155bp

Fig. 7

Genotype: 1/1 1/2 2/2
281bp -140bp

Fig. 8

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Sequence 5' to 3' for porcine PRLR Sequence

Human exon 4

gacagttacctcctgg aaaacctgag atctttaaat gtcgttctcc caataaggaa acattcacct
gctggtggag gcctgggaca gatggaggac ttcctaccaa ttattcactg acttaccaca
gggaagg

Alignment	F	~	^	n	4																															
Hsap		a		a Q	g	t	t L	а	С	c P			c P	t		g G			a K	а		c P			a E			t I	С		t F	t		a K	а	t
pig	?	а	С	а	g	t	c S	а	С	С	ŧ	С	C P	g	g	g	а	а	а	а	С	С	t	g	а	g	а	t	С	t	t F	С	а	а	а	t
Hsap	g C		С	g R		t	c S		С	c P		а	a N	t		a K		g	a E		а	c T	а	t	t F	С	а	c T		t	g	С	t	g	g	t
pig	g	t	С	g	t	t	С	t	С	С	С	g	a E	а	а	а	g	g	а	а	а	С	а	t	t	С	g	c A		t	g	С	t	g	g	ŧ
Hsap	g	g	а	g R		С	c P		g	g G		а	c T		g	a D		g	g G		g	g G		С	t L	t	С	c F		а	c T		а	a N		t
pig	g	g	а	a K	_	С	C P	g	g	g	g	g	c A		g	а	t	g	g	а	g	g	а	С	t	t	С	С	t	а	С	С	а	a N		t
Hsap	a Y		t	c S		С	t L	g	а	c T		t	a Y		С	a H		а	g R		g	a E		g	g G	i										
pig	?		а	c T		С	t	g	а	С	t	t	а	С	С	а	С	а	a K		g	а	а	g	g											

